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HEWLETT-PACKARD COMPANY
Intellectual Property Administration
3404 E. Harmony Road
Mail Stop 35
FORT COLLINS, CO 80528

EXAMINER
HOANG, HIEU T

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ipa.mail@hp.com
jessica.l.fusek@hp.com

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BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES

Application Number: 10/698,812
Filing Date: October 30, 2003
Appellant(s): MICHELE COVELL et al.

John P. Wagner, Jr., Reg. No. 35,398
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed 07/27/2009 appealing from the Office action

mailed 03/27/2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

No amendment after final has been filed.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,970,602	Smith et al.	11-2005
7,277,431	Walter et al.	10-2007

Pranata, "Development of Network Service Infrastructure for Transcoding Multimedia Streams," Master Thesis Nr. 1978, University of Stuttgart, 05-2002.

Ma et al., "Content Services Network: The architecture and Protocols," IDS, 2001.

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2.   Claims 1-7, 12-17, 22-27, 35-37, 42-44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Pranata (Development of Network Service Infrastructure For Transcoding Multimedia Streams), in view of Smith et al. (US 6,970,602, hereafter Smith)

3.   For claim 1, Pranata discloses a method of selecting a media service provider

based on static resource information, said method comprising:

-   receiving service provider information from a plurality of service providers at a

    service location manager (4.2.3, fig. 4.5, combination of lookup service and

    service broker is read as a service location manager for receiving providers'

    information), said service provider information comprising indications of initiation

    and termination of service sessions involving said plurality of service providers

    (fig. 5-3, page 32, par. 2, list B of transcoders that have initiated and cached

    sessions of source media);

-   maintaining data at said service location manager, said data comprising

    identification of said plurality of service providers (4.2.3, storing information about

    transcoders, fig. 5.3, lists of IDs of transcoders), static service provider

    information and static network information, wherein said data is based at least in

    part on said service provider information (fig. 5-3, list A, page 32, par. 1, page 33

    par. 1, selecting a transcoder or service provider based on static transcoders'

    information, e.g. supported transcoding formats of the transcoders, 5.1.2, par. 3,

    selecting a transcoder based on static network information such as available

    bandwidth, delay, jitter);

-   identifying a type of service that needs to be performed on an item of content

    requested by a client device and supplied by a content source before a service

    result is provided to a client device, said identifying is performed at said service

    location manager (5.2.3, client request for a media stream from a server as in fig.

5.8, section 6.4, client, a client requesting for a stream from a content provider at

the URL) (fig. 5.8, 5.9 and description on page 40, e.g. steps 4-5, find a

corresponding transcoder for transcoding the requested media stream before

sending the stream to the client; the transcoder identified by a service broker and

a service lookup module), and said type of service comprises processing said

item of content (page 40, e.g. steps 4-5, find a corresponding transcoder for

transcoding the requested media stream)

- wherein said item of content is identified during a session with a client device

    (6.4, client-content source streaming session); and

- selecting a service provider from said plurality of service providers (4.3.4, fig. 5.4

    select a most appropriate transcoder) based on said data maintained at said

    service location manager and said selecting performed at said service location

    manager (fig. 5-3, list A, page 32, par. 1, page 33 par. 1, selecting a transcoder

    or service provider based on static transcoder's information, e.g. supported

    transcoding formats of the transcoders, 5.1.2, par. 3, selecting a transcoder

    based on static network information such as available bandwidth, delay, jitter;

    selection based on cached sessions), said selecting of a service provider further

    based on service session information if said service session information has

    been received (fig. 5-3, list B, page 32 par. 2, selecting transcoders based on

    whether or not the transcoders have received and cached source media or

    service session information); and further based on said identifying said type of

    service (fig. 5.8, 5.9 and description on page 40, e.g. steps 4-5, find a

corresponding transcoder for transcoding the requested media stream before
sending the stream to the client)

- providing transfer information for transferring said session to said service
provider of said type of service (fig. 5.9, transcoder requests stream session to
server and receives the stream), wherein said service provider of said type of
service performs said type of service on said item of content if said type of
service is needed (fig. 5-8, page 40 steps 4, 5, 10 and 11, task of transcoding the
requested stream is assigned to the selected transcoder, the transcoder then
transcodes the stream received from the server then transmits to the client).

Pranata does not disclose said type of service is selected from a group of
services consisting of processing said item of content and providing an analysis of said
item of content;

However, Smith discloses a list of services consisting of processing said item of
content and providing an analysis of said item of content (fig. 1, content analysis module
109 and content transcoder module 107, col. 2 lines 57-67, content analysis for
analyzing the features, purposes and relevancies of the multimedia objects)

It would have been obvious for one skilled in the art at the time of the invention to
combine the teachings of Pranata and Smith to select a service including content
analysis and content processing to be performed on the content to provide more
available services and functionalities to the system of Pranata.

4.　　　For claim 2, Pranata discloses an electronic device for providing content to a client device, said electronic device comprising:

- a memory device comprising computer executable instructions stored therein (7.1.1, computer hardware with memory);

- a processor that performs a selection of a service provider from among a plurality of service providers that is capable of performing a needed type of service on an item of content requested by a client device and supplied by a content source (fig. 5-8, section 6.4, or fig. 5-10, page 43, client, a client requesting for a stream from a content provider at the URL, a corresponding transcoder for transcoding that stream will be located by a broker and a service lookup module); said selection based on data maintained at said electronic device, said data comprising identification of said plurality of service providers, static service provider information and static network information (fig. 5-3, list A, page 32, par. 1, page 33 par. 1, selecting a transcoder or service provider based on static transcoder's information, e.g. supported transcoding formats of the transcoders, 5.1.2, par. 3, selecting a transcoder based on static network information such as available bandwidth, delay, jitter); wherein said data is based at least in part on service provider information received from said plurality of service providers, said service provider information comprising indications of initiation and termination of service sessions involving said plurality of service providers (fig. 5-3, page 32, par. 2, list B of transcoders that have initiated and cached sessions of source media),

- and said type of service comprises processing said item of content (page 40, e.g. steps 4-5, find a corresponding transcoder for transcoding the requested media stream)

- said item of content and type of service to be performed on said item of content are identified during a session with said client device (5.2.3, session of client requesting for a media stream from a server as in fig. 5.8, section 6.4, client, session of a client requesting for a stream from a content provider at the URL, page 68 last par., client-content source session for receiving the stream content), wherein said type of service is identified before a service result is provided to said client device (fig. 5-8, section 6.4, or fig. 5-10, page 40 steps 4-5 and 10-11, a transcoder is identified for transcoding stream received from server then transmitting it to client);

- said processor further selecting said service provider of said type of service based on service session information if said service session information has been received (fig. 5-3, list B, page 32 par. 2, selecting transcoders based on whether or not the transcoders have received and cached source media or service session information).

Pranata does not disclose said type of service is selected from a group of services consisting of processing said item of content and providing an analysis of said item of content;

However, Smith discloses a list of services consisting of processing said item of content and providing an analysis of said item of content (fig. 1, content analysis module

109 and content transcoder module 107, col. 2 lines 57-67, content analysis for

analyzing the features, purposes and relevancies of the multimedia objects)

It would have been obvious for one skilled in the art at the time of the invention to

combine the teachings of Pranata and Smith to select a service including content

analysis and content processing to be performed on the content to provide more

available services and functionalities to the system of Pranata.

5.   For claims 3 and 4, the claims are rejected for the same rationale in claim 1.

6.   For claim 5, the claim is rejected for the same rationale as in claim 1. Pranata-

Smith further discloses that the item of content is an item of streaming content (Pranata,

title, multimedia streams)

7.   For claims 25 and 35, the claims are rejected for the same rationale in claim 5.

8.   For claim 15, the claim is rejected for the same rationale in claim 2.

9.   For claim 26, Pranata-Smith further discloses said static service provider and

network information is maintained by a service location manager (Pranata, fig. 5-8, 5-

10, fig. 5-3, list A, page 32, par. 1, page 33 par. 1, 5.1.2, par. 3, service broker is a

service location manager that is linked to lookup service and transcoders--service

providers, a service broker uses transcoders' information such as supported transcoding

formats and network information to find a most appropriate transcoder).

10.   For claims 7, 17, 27 and 37, Pranata-Smith further discloses said static service

provider and network information comprises information concerning computational and

memory resources, connectivity and expected bandwidth and latency between servers

(Pranata, 5.1.2, network requirement), client and content addresses (Pranata, 6.2.1,

6.2.1.2, address), session dispatch history (Pranata, session cached or not using client

and content addresses), network proximity (Pranata, 6.2.3, page 64 last par., fig. 6-4,

location) and the identity of special purpose hardware (Pranata, 5.1.2, hardware

requirement).

11.   For claims 12, 22, and 42, Pranata does not disclose said streaming content is

serviced and delivered to a client device as it is received. However, Smith discloses the

same (col. 3 lines 65-66, col. 4 lines 63-66, cached content is received and delivered as

is to clients). It would have been obvious for one skilled in the art at the time of the

invention to combine the teachings of Smith and Pranata to deliver cached content as is

to save computing resources.

12.   For claims 13, 14, 23, 24, 43 and 44, Pranata does not disclose non streamed

content is generated from said streaming content by said service provider; and said

streaming content is serviced by said service provider and delivered to a client device

as a non streamed file.

However, Smith discloses analyzing streaming content to generate a non-stream

content for a client (abstract, col. 4 lines 39-45, speech to text converting)

It would have been obvious for one skilled in the art at the time of the invention to

combine the teachings of Pranata and Smith to generate and deliver to the clients non-

stream content from stream content to so that clients which can only receive non-stream

content can use the service, and further reduce networking cost of delivering content.

13.   Claims 9-11, 19-21, 24, 29-34 and 39-41 are rejected under 35 U.S.C. 103(a) as

being unpatentable over Pranata, Smith, in view of Ma et al. (Content Services Network:

The Architecture and Protocols, hereafter Ma, 2001, cited in IDS).

14.   For claims 9, 19, 29 and 39, Pranata-Smith does not disclose said service

session information comprises service session initiation and termination information.

However, Ma discloses using a predistribution service wherein result of previous

request and response for a service (session initiation and termination) is cached for

reuse (section 4, par. 6, 4.1, par. 3, fig. 3, steps 1-5, searching for cache hit at the

caching proxy)

15.   For claims 10, 20, 30 and 40, Pranata-Smith does not disclose said initiation and

termination information provides information regarding the computational resources

used in previous sessions. However, Ma discloses computational resources used in a

session (table 1, resources, section 2 par. 1, computational resources to process

content in a previous session, section 4 par. 6). It would have been obvious for one

skilled in the art at the time of the invention to combine the teachings of Pranata, Smith

and Ma to cache session information including computational resources to efficiently

cache retrieve content.

16.   For claims 11, 21, 31 and 41, Pranata-Smith does not disclose said session

dispatch history comprises information concerning content length. However, Ma

discloses caching previous session including time for expiring cached content (fig. 3,

steps 1 and 5, 4.1 par. 3, expiration time of content cached). It would have been

obvious for one skilled in the art at the time of the invention to combine the teachings of

Pranata, Smith and Ma to store history of session including content length time to

efficiently cache retrieve content.

17.   Claims 24 is rejected for the same rational as in claim 14.

18.   Claims 32-34 are rejected for the same rational as in claims 12-14 respectively.

19.   Claims 8, 18, 28 and 38 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Pranata, Smith, in view of Walter et al. (US 7,277,431, hereafter

Walter).

20.   For claims 8, 18, 28 and 38, Pranata-Smith does not disclose said special

purpose hardware comprises compression hardware. However, Walter discloses the

same (abstract, encryption and compression hardware for traffic that needs to be

encrypted and/or compressed)

It would have been obvious for one skilled in the art at the time of the invention to

combine the teachings of Pranata-Smith and Walter to further identify a service for a

content based on security requirements to provide services with more security.

(10) Response to Argument

Appellant has argued that the combination of prior art Pranata in view of

Smith does not teach "*receiving service provider information from a plurality of*

service providers at a service location manager*" and "*maintaining data at said

***service location manager*," said data based on the received service provider**

information.

The examiner respectfully disagrees.

Pranata-Smith does teach "receiving service provider information from a plurality

of service providers at a service location manager" and "maintaining data at said service

location manager." Pranata, in at least sections 4.3.1 and 3.3.1, par. 3, describes that

each transcoder or service provider, when added to the network, has to register its

service information or attributes (such as address, supported formats, location…) to the

lookup service (combination of the lookup service and service broker is read as service

location manager). Then using the stored service information or attributes, the lookup

service and service broker can provide a client with the most appropriate service

(Pranata, 4.2.3, par. 2)

Applicant relies on the fact Pranata teaches a service broker accesses a

directory that includes a list of transcoders to conclude the prior art does not teach

"receiving service provider information from a plurality of service providers at a service

location manager" and "maintaining data at said service location manager." This

argument is not logical. That the service broker accesses a directory that includes a list

of transcoders has nothing to do with the service broker receives or does not receive

transcoders' information from other sources. On the contrary, the fact that there is a

service directory including descriptions of the services (multimedia media transcoding

services) would enable one skilled in the art to appreciate that the service information

are provided to the service broker in some manner, in this case, from the service

providers themselves (Pranata, 4.3.1 and 3.3.1, par. 3).

In response to the argument that Pranata teaches away from "receiving service

provider information from a plurality of service providers at a service location manager"

and "maintaining data at said service location manager," the examiner submits that

there is no disclosure, teachings and/or suggestions in Pranata that would enable one

of ordinary skilled in the art to conclude that Pranata avoids service providers sending

their service information to a service location manager. See In re Fulton, 391 F.3d 1195,

1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004) [However, "the prior art's mere

disclosure of more than one alternative does not constitute a teaching away from any of

these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed…."]. On the contrary, Pranata, in at least sections 4.3.1 and 3.3.1, par. 3, describes that each transcoder or service provider, when added to the network, has to register its service information or attributes (such as address, supported formats, location…) to the lookup service (combination of the lookup service and service broker is read as service location manager).

Appellant has argued that prior art Pranata does not teach or suggest that a lookup service and a service broker can be implemented together. Therefore, reading a lookup service and service broker as a service location manager is improper.

The examiner respectfully disagrees and maintains that the lookup service and

the service broker do not have to be distinct in the disclosure of Pranata. One skilled in

the art would appreciate that both the lookup service and the service broker are

software elements or modules (Pranata, fig. 4-5, five elements of the network service

architecture) that can be implemented together at one machine (typically a server). In

fact, Pranata does disclose that the two are implemented at one server (fig. 7-1, section

7.1.4, *horn server* implements both lookup service (also providing its own services as

transcoders 2, 3) and service broker).

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the

Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

/H.H./

Hieu Hoang

Examiner, Art Unit 2452

09/17/2009

Conferees:

/Kenny S Lin/

Primary Examiner, Art Unit 2452

/John Follansbee/

Supervisory Patent Examiner, Art Unit 2451